

See "Instructions for Filling out the Work Permit" contained in the Work Planning and Control for Experiments and Operations Subject Area.

1. Work request WCC fills out this section.

☐ Standing Work Permit

Requester: Don Lynch	Date: 06/18/12	Ext.: 2253	Dept/Div/Group: PO/PHENIX
Other Contact person (if different from requester): Carter Biggs			Ext.: 7515
Work Control Coordinator: Don Lynch		Start Date: 06/19/12	Est. End Date: 06/19/12
Brief Description of Work: Troubleshoot failed VTX/FVTX Chiller			
Building: 1008	Room: Assembly Hall	Equipment: VTX/FVTX Chillers	Service Provider: Outside Vendor: Integrated HVAC-Dominick Ionnotti

2. WCC, Requester/Designee, Service Provider, and ESS&H (as necessary) fill out this section or attach analysis

ESS&H ANALYSIS							
Radiation Concerns	<input type="checkbox"/> None	<input type="checkbox"/> Activation	<input type="checkbox"/> Airborne	<input type="checkbox"/> Contamination	<input type="checkbox"/> Radiation	<input type="checkbox"/> NORM	<input checked="" type="checkbox"/> Other Controlled Area
<input type="checkbox"/> Special nuclear materials involved, notify Isotope Special Materials Group				<input type="checkbox"/> Fissionable/Radiological materials involved, notify Laboratory Nuclear Safety Officer			
Radiation Generating Devices:	<input type="checkbox"/> Radiography		<input type="checkbox"/> Moisture Density Gauges	<input type="checkbox"/> Soil Density Gauges		<input type="checkbox"/> X-ray Equipment	
Safety and Security Concerns	<input type="checkbox"/> None		<input type="checkbox"/> Explosives	<input type="checkbox"/> Transport of Haz/Rad Material		<input checked="" type="checkbox"/> Pressurized Systems	
<input type="checkbox"/> Adding/Removing Walls or Roofs	<input type="checkbox"/> Critical Lift		<input type="checkbox"/> Fumes/Mist/Dust*	<input type="checkbox"/> Magnetic Fields*		<input type="checkbox"/> Railroad Work	
<input type="checkbox"/> Asbestos*	<input type="checkbox"/> Cryogenic		<input type="checkbox"/> Heat/Cold Stress	<input type="checkbox"/> Nanomaterials/particles*		<input type="checkbox"/> Rigging	
<input type="checkbox"/> Beryllium*	<input type="checkbox"/> Electrical		<input type="checkbox"/> Hydraulic	<input type="checkbox"/> Noise*		<input type="checkbox"/> Silica*	
<input type="checkbox"/> Biohazard*	<input type="checkbox"/> Elevated Work		<input type="checkbox"/> Lasers*	<input type="checkbox"/> Non-ionizing Radiation*		<input type="checkbox"/> Security Concerns	
<input type="checkbox"/> Chemicals/Corrosives*	<input type="checkbox"/> Excavation		<input type="checkbox"/> Lead*	<input type="checkbox"/> Oxygen Deficiency*		<input type="checkbox"/> Suspect/Counterfeit Items	
<input type="checkbox"/> Confined Space*	<input type="checkbox"/> Ergonomics*		<input type="checkbox"/> Material Handling	<input type="checkbox"/> Penetrating Fire Walls		<input type="checkbox"/> Vacuum	
* Safety Health Rep. Review Required		<input type="checkbox"/> Haz, Rad, Bio Material Exceed DOE 151.1-C Levels - Contact OEM				<input type="checkbox"/> Other	
Environmental Concerns			<input type="checkbox"/> None		<input type="checkbox"/> Work impacts Environmental Permit No.		
<input type="checkbox"/> Atmospheric Discharges (rad/non-rad)			<input type="checkbox"/> Land Use Institutional Controls		<input type="checkbox"/> Soil Activation/contamination		<input type="checkbox"/> Waste-Mixed
<input type="checkbox"/> Chemical or Rad Material Storage or Use			<input type="checkbox"/> Liquid Discharges		<input type="checkbox"/> Waste-Clean		<input type="checkbox"/> Waste-Radioactive
<input type="checkbox"/> Cesspools (UIC)			<input type="checkbox"/> Oil/PCB Management		<input type="checkbox"/> Waste-Hazardous		<input type="checkbox"/> Waste-Regulated Medical
<input type="checkbox"/> High water/power consumption			<input checked="" type="checkbox"/> Spill potential		<input type="checkbox"/> Waste-Industrial		<input type="checkbox"/> Underground Duct/Piping
Waste disposition by: _____							
Pollution Prevention (P2)/Waste Minimization Opportunity:			<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes				
FACILITY CONCERNS			<input checked="" type="checkbox"/> None <input type="checkbox"/> Intermittent Energy Release				
<input type="checkbox"/> Access/Egress Limitations			<input type="checkbox"/> Electrical Noise		<input type="checkbox"/> Potential to Cause a False Alarm		<input type="checkbox"/> Vibrations
			<input type="checkbox"/> Impacts Facility Use Agreement		<input type="checkbox"/> Temperature Change		<input type="checkbox"/> Other
<input type="checkbox"/> Configuration Management			<input type="checkbox"/> Maintenance Work on Ventilation Systems		<input type="checkbox"/> Utility Interruptions		
WORK CONTROLS							
Work Practices							
<input type="checkbox"/> None		<input type="checkbox"/> Exhaust Ventilation		<input checked="" type="checkbox"/> Lockout/Tagout		<input type="checkbox"/> Spill Containment	
<input checked="" type="checkbox"/> Back-up Person/Watch		<input type="checkbox"/> HP Coverage		<input type="checkbox"/> Posting/Warning Signs		<input type="checkbox"/> Time Limitation	
<input type="checkbox"/> Barricades		<input type="checkbox"/> IH Survey		<input type="checkbox"/> Scaffolding-requires inspection		<input type="checkbox"/> Warning Alarm (i.e. "high level")	
						<input type="checkbox"/> Electrical Inspection Required	
Personal Protective Equipment							
<input type="checkbox"/> None		<input type="checkbox"/> Ear Plugs		<input type="checkbox"/> Gloves		<input type="checkbox"/> Lab Coat	
<input type="checkbox"/> Coveralls		<input type="checkbox"/> Ear Muffs		<input type="checkbox"/> Goggles		<input type="checkbox"/> Respirator*	
<input type="checkbox"/> Disposable Clothing		<input type="checkbox"/> Face Shield		<input type="checkbox"/> Hard Hat		<input checked="" type="checkbox"/> Safety Shoes	
						<input type="checkbox"/> High visibility cloths/vest	
						<input type="checkbox"/> Other	
Permits Required (Permits must be valid when job is scheduled.)							
<input checked="" type="checkbox"/> None		<input type="checkbox"/> Cutting/Welding		<input type="checkbox"/> Impair Fire Protection Systems			
<input type="checkbox"/> Concrete/Masonry Penetration		<input type="checkbox"/> Digging/Core Drilling		<input type="checkbox"/> Rad Work Permit-RWP No			
<input type="checkbox"/> Confined Space Entry		<input type="checkbox"/> Electrical Working Hot		<input type="checkbox"/> Other			
Dosimetry/Monitoring							
<input checked="" type="checkbox"/> None		<input type="checkbox"/> Heat Stress Monitor		<input type="checkbox"/> Real Time Monitor		<input type="checkbox"/> TLD	
<input type="checkbox"/> Air Effluent		<input type="checkbox"/> Noise Survey/Dosimeter		<input type="checkbox"/> Self-reading Pencil Dosimeter		<input type="checkbox"/> Waste Characterization	
<input type="checkbox"/> Ground Water		<input type="checkbox"/> O ₂ /Combustible Gas		<input type="checkbox"/> Self-reading Digital Dosimeter		<input type="checkbox"/> Other	
<input type="checkbox"/> Liquid Effluent		<input type="checkbox"/> Passive Vapor Monitor		<input type="checkbox"/> Sorbent Tube/Filter Pump			
Training Requirements (List specific training requirements)							
Vendor will be escorted at all times and receive and acknowledge briefing by the escort in accordance with CAD OPM 2.16.c							
Based on analysis above, the Review Team determines the risk, complexity, and coordination ratings below:				If using the permit when all hazard ratings are low, only the following need to sign: (Although allowed, there is no need to use back of form)			
ESS&H Risk Level:		<input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High		WCC:		Date:	
Complexity Level:		<input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High		Service Provider:		Date:	
Work Coordination:		<input type="checkbox"/> Low <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> High		Authorization to start		Date:	
(Department/Division, or their equivalent, Sup/WCC/Designee)							

3. Both work requester and service provider contribute to work plan (use attachments for detailed plans)

Work Plan (procedures, timing, equipment, scheduling, coordination, notifications, and personnel availability need to be addressed in adequate detail):

Vendor to perform his own worker planned work to troubleshoot and repair VTX/FVTX chiller. PHENIX trained technician shall escort VENDOR to and from RHIC controlled area at PHENIX (bldg. 1008) and remain with vendor at all times. BNL electrician shall be available to LOTO electrical service as necessary.

Special Working Conditions Required (e.g., Industrial Hygiene hold points or other monitoring)
No

Notifications to operations and Operational Limits Requirements: No

Post Work Testing, Notification or Documentation Required: Yes, meet specs of chiller

Job Safety Analysis Required: ☐ Yes ☒ No

Review Done: ☒ in series ☐ team

Reviewed by: * Primary Reviewer signature means that the Review Team members were appropriate for the work that was planned, the Team visited the job site, hazards and risks that could impact ESS&H have been considered and controls established according to BNL requirements. In addition, this signature indicates that applicable JRAs, FRAs, as well as other planning documents have been reviewed and training requirements have been identified and recorded on this permit.

Title	Name (print)	Signature	Life #	Date
ES&H Professional				
F&O Facility Project Manager				
Service Provider				
Work Control Coordinator	Don Lynch		20146	6/18/2012
Safety Health Representative				
Research Space Manager				
Other				
Other (PHENIX Escort)				
Required Walkdown Completed				
*Primary Reviewer				

4. Job site personnel (Supervisor and workers) fill out this section.

Note: Signature indicates personnel performing work have read and understand the hazards and permit requirements (including any attachments) and all training required for this permit is current/complete. Job Supervisor/Contractor Supervisor signatures also includes verification that worker training required for this permit is current/complete.

Job Supervisor:		Contractor Supervisor:	
Workers:	Life#:	Workers :	Life#:

Workers are encouraged to provide feedback on ESS&H concerns or on ideas for improved job work flow. Use feedback form or space below.

5. Department/Division, or their equivalent, Line Manager or Designee

Conditions are appropriate to start work: (Permit has been reviewed, work controls are in place and site is ready for job.)

Name:	Signature:	Life#:	Date:
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6. Worker provides feedback.

Worker Feedback (use attached sheets as necessary)

a) WCM/WCC: Are there any changes as a result of worker feedback? ☐ Yes ☐ No

Note: See Work Planning and Control for Experiments and Operations Subject Area section 2.6.

7. Post Job Review/Closeout: Work Control Coordinator (authorizing dept.) checks quality of completed permit and ensures the work site is left in an acceptable condition. (WCC can delegate clean up of job site to work supervisor.) The WCC ensures that the change process to update drawings, placards, postings, procedures, etc., is initiated, if necessary.

Name:	Signature:	Life#:	Date:
Comments:			

*If you are using a printed copy of this procedure, and not the on-screen version, then you **MUST** make sure the dates at the bottom of the printed copy and the on-screen version match. The on-screen version of the Collider-Accelerator Department Procedure is the Official Version. Hard copies of all signed, official, C-A Operating Procedures are available by contacting the ESSHQ Procedures Coordinator, Bldg. 911A*

C-A OPERATIONS PROCEDURES MANUAL

ATTACHMENT

2.16.c Briefing Outline and Training Waiver for Persons Under Escort (Controlled Areas, No TLD)

C-A-OPM procedure in which this attachment is used.		
2.16		

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Approved: _____ *Signature on File* _____
 Collider-Accelerator Department Chairman Date

R. Karol

Briefing Outline and Training Waiver for Persons Under Escort
C-A Controlled Areas, No TLD

Training Waiver

The training requirements for _____ (see below) to enter into _____ a controlled area, have been waived because the individual(s), escorted by _____ (see below) meets the requirements of this subject area.

Briefing Outline

The following issues, at a minimum, need to be addressed in a briefing between the person under escort and the escort, prior to entry into the Controlled Area:

1. The person under escort may never be out of the escort's sight while in the posted controlled area.
2. The person under escort, and escort, must be able to communicate in the same language.
3. The person under escort must follow the directions of the escort should an emergency arise, since the escort is responsible for the person under escort.
4. The person under escort must be informed of the hazard(s) in the area.
5. The person under escort may not do any work, or touch any item, that may degrade radiological conditions. The escort needs to identify such items to the escorted person.

Printed Name of Person Under Escort:

Signature of Person Under Escort:

Date:

Signature of Escort(s) (Note 1):

Life/Guest # of Escort(s) (Notes 2,3):

Date:

NOTES: 1. Forward completed forms to the C-A ESSHQ Training Office, A. Luhrs, Building 911A.

2. Each escort shall review the Briefing outline above, and the escort requirements on the back of this form, before signing as the responsible escort.

3. This form shall be kept by the individual being escorted, if additional escorts are involved, until the escorted entry is completed. Each escort must add their signature, Life/Guest #, and date, if more than one escort is involved.

Briefing Outline and Training Waiver for Persons Under Escort (cont.)

C-A Controlled Areas, No TLD

General Responsibility of the Escort

1. As the escort, you have current Collider User, or C-A Access Training (and GERT), as a minimum.
2. You are responsible for the visitor(s) / untrained person(s) during an evacuation/fire/etc., and shall escort them to the assembly area, or direct them to leave the lab if appropriate.
3. You will assure that you take actions to maintain the visitor(s)/untrained person(s) dose as low as reasonably achievable.
4. The escorted individual may not perform any work, unless they have read, understand, and have signed the experiment's Low Hazard - Skill of the Craft Work Plan.
5. For visits to experimental halls in RHIC, you have informed the STAR and PHENIX Shift Leader (if manned), or Experiment Spokesperson (or designee), and the associated Liaison Physicist, to determine any additional requirements.
6. The escorted person(s) shall print their name and sign the front of this form if ≥ 18 years of age. The ESSHQ Division Head (x5272), or ESSHQ Associate Chair, shall approve all entries for people that are <18 years.
7. You will ensure that at all times individuals under your escort remain within sight, and that you are able to communicate in the same language (or have an interpreter present).
8. You have informed the person(s) you are escorting of the effects of oxygen deficiency (i.e. dizziness, faster heartbeat), if they will be in a posted ODH area.
9. You have reviewed the ODH evacuation alarms and procedures with the person you are escorting, if they will be in a posted ODH area.
10. You have informed the escorted individual that if they have a medical implant, they may not enter any posted Magnetic Field Area.

Approved: _____ Date: _____

Note: During working hours, approval may be given by the C-A ESSHQ Division Head or ESH Coordinator. During off-hours, a C-A Radiological Control Technician, or Operations Coordinator, may approve the entry, after verifying that the escort has current training for the experimental area.